



## SOCIAL SECURITY ADMINISTRATION

20 CFR Part 404

[Docket No. SSA-2010-0078]

RIN 0960-AH28

Revised Medical Criteria for Evaluating Visual Disorders

AGENCY: Social Security Administration.

ACTION: Final Rules.

**SUMMARY:** We are revising and reorganizing the criteria in the Listing of Impairments (listings) that we use to evaluate cases involving visual disorders in adults and children under titles II and XVI of the Social Security Act (Act). The revisions reflect our program experience and guidance we have issued in response to adjudicator questions we have received since we last revised these criteria in 2006. These revisions will provide clarification about how we evaluate visual disorders and ensure more timely adjudication of claims in which we evaluate visual disorders that result in a loss of visual acuity or field.

**DATES:** These rules are effective April 29, 2013.

**FOR FURTHER INFORMATION CONTACT:** Cheryl A. Williams, Office of Medical Listings Improvement, Social Security Administration, 6401 Security Boulevard, Baltimore, Maryland 21235-6401, (410) 965-1020. For information on eligibility or filing

for benefits, call our national toll-free number, 1-800-772-1213 or TTY 1-800-325-0778, or visit our Internet site, Social Security Online, at <http://www.socialsecurity.gov>.

#### SUPPLEMENTARY INFORMATION:

##### Background

We are making final the rules for evaluating visual disorders we proposed in a notice of proposed rulemaking (NPRM) published in the Federal Register on February 13, 2012 (77 FR 7549). The preamble to the NPRM provides a full explanation of the background of these revisions. You can view the preamble by visiting [www.regulations.gov](http://www.regulations.gov) and searching for document "SSA-2010-0078-0001." We are making a number of changes because of public comments to the NPRM. We explain those changes in our summary of the public comments and our responses later in this preamble. We are also making a number of minor editorial changes throughout these final rules.

##### Why are we revising the listings for evaluating visual disorders?

We are revising the listings for evaluating visual disorders to update the medical criteria, clarify how we evaluate visual disorders, and address adjudicator questions.

##### When will we begin to use these final rules?

We will begin to use these final rules on their effective date. We will continue to use the current rules until the date these final rules become effective. We will apply the final rules to new applications filed on or after the effective date of these final rules and to claims that are pending on or after the effective date.<sup>1</sup> These final rules will remain in effect for 5 years after the date they become effective, unless we extend them, or revise and issue them again.

### Public Comments

In the NPRM, we provided the public with a 60-day comment period, which ended on April 13, 2012. We received 12 public comment letters. The comments came from members of the public, national medical organizations, disability examiners, and a national association representing disability examiners in the State agencies that make disability determinations for us. We have summarized the comments below because some of them were long. We summarized only those comments with concerns or suggestions and responded to the significant issues that were relevant to this rulemaking. Some commenters supported the proposed changes and noted the provisions with which they agreed. While we appreciate those comments, we have not summarized or responded to them below because they do not require a response.

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<sup>1</sup>This means that we will use these final rules on and after their effective date in any case in which we make a determination or decision. We expect that Federal courts will review our final decisions using the rules that were in effect at the time we issued the decisions. If a court reverses the Commissioner's final decision and remands a case for further administrative proceedings after the effective date of these final rules, we will apply these final rules to the entire period at issue in the decision we make after the court's remand.

### Evidence

Comment: One commenter suggested that we replace the reference to “physician or optometrist” with “optometrist or ophthalmologist” in 2.00A4 and 102.00A4 where we explain what evidence we need to evaluate visual disorders, including those that result in statutory blindness under title II.

Response: We did not adopt this comment because we removed the reference to “physician or optometrist” from those sections. When we were considering this comment, we determined we did not need to include the reference because our rules that explain the sources who can provide evidence to establish an impairment are in 20 CFR 404.1513 and 416.913, and, therefore, we do not need to restate those sources in the introductory text.

### Vision Testing

Comment: One commenter suggested that we maintain the specific references to the Humphrey Field Analyzer (HFA) and Octopus perimeters that were provided in the introductory text. The commenter believed that the specific references were essential for making accurate determinations and decisions.

Response: We did not adopt this comment because we believe that providing the

requirements for acceptable perimeters and perimetry is sufficient for accurate decisionmaking. We provide the requirements for acceptable perimeters in 2.00A9 and 102.00A9. We also provide the requirements for acceptable perimetry in 2.00A6 and 102.00A6 and include examples of acceptable automated static threshold tests (HFA 30-2, HFA 24-2, and Octopus 32) that can be used to evaluate visual field loss.

Comment: One commenter suggested that we develop a formula for determining the intensity of the stimulus based on the maximum stimulus luminance of the instrument rather than include two examples in 2.00A6b(iii) and 102.00A6b(iii).

Response: We did not adopt the commenter's suggestion that we develop a formula to determine the intensity of the stimulus, but we did make a change in the final rules to address the commenter's concern. We added a third example (2.00Ab(iii)C and 102.00Ab(iii)C), so the listings now include the most common maximum stimulus luminances on automated static threshold perimeters.

Comment: One commenter said that the mean deviation in 2.03B and 102.03B varies by age and suggested that we reconsider using mean deviation as a listing criterion.

Response: We did not adopt this comment. As we said when we published the final rule in 2006 (71 FR 67013), the National Research Council recommended that a mean deviation of 22 or worse on an automated static threshold test measuring the central 30 degrees of the visual field would serve as a reasonable criterion for disability

determination. We continue to agree with that recommendation.<sup>2</sup>

Comment: One commenter requested that we provide guidance on how to interpret and assess medical findings included in the case file that are outside of the specified testing requirements.

Response: We did not adopt this comment. We cannot provide guidance on how to use all vision tests. We believe that it is sufficient to provide specific guidance on the testing that is required to meet the listings. All other testing found in the medical evidence can be evaluated with the totality of the evidence when making a determination or decision at other steps in the sequential evaluation.

Commenter: One commenter said that our use of the term "cycloplegic refraction" in proposed listing sections 2.00A5d and 102.00A5d is incorrect and suggested that we revise the definition for clarity and accuracy. The commenter also noted that cycloplegic refraction is a part of a comprehensive eye examination and may be used to provide a more precise measurement of refractive error.

Response: We partially adopted this comment. We revised the definition of "cycloplegic refraction" in 2.00A5d and 102.00A5d, but we did not adopt the commenter's suggestion to note that cycloplegic refraction is a part of a comprehensive eye examination. Rather,

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<sup>2</sup> National Research Council, Committee on Disability Determination for Individuals with Visual Impairments. (2002). Visual Impairments: Determining Eligibility for Social Security Benefits. Washington, DC: National Academy Press. Retrieved from [http://www.nap.edu/catalog/10320.html?se\\_side](http://www.nap.edu/catalog/10320.html?se_side)

we deleted the statement in the proposed rules that said cycloplegic refraction testing is not part of a routine examination.

### Evaluating Vision Loss in Young Children

Comment: One commenter suggested that we modify the behavioral criteria in 102.02B for evaluating visual acuity in pre-verbal children by stating that the inability to fixate and pursue a one-inch toy at one foot with the better eye qualifies as legal blindness in children over one year of age. Another commenter suggested that we provide additional guidance in 102.00A for evaluating vision loss in young children.

Response: We did not adopt these comments. We believe that the guidance we provide in 102.00A5a(iv) sufficiently addresses the fact that very young children test differently from older children. We believe the requirements of 102.02B adequately address the possible issues that may arise when testing very young children. There is no need to modify the behavioral criteria. We did, however, clarify in final 102.00A5a(iv) that the inability to participate in testing using Snellen methodology or other comparable testing must be “due to your young age.”

### Scotomas

Comment: One commenter suggested that we expand our guidance on scotomas in 2.00A6h by including information about how scotomas affect visual fields. The

commenter also suggested that we provide guidance on the test instruments that would be best for measuring and evaluating the limitations caused by the scotoma.

Response: We did not adopt this comment. We clarify the definition of scotoma by including “field defect” in addition to a “non-seeing area.” We believe that the guidance we provide in 2.00A6h (and 102.00A6h) for how we consider scotomas when evaluating vision loss, in addition to the guidance in 2.00A6a, 2.00A6b, and 2.00A6e (and 102.00A6a, 102.00A6b, and 102.00A6e) on acceptable perimeters, explains sufficiently how scotomas affect visual fields, how we consider scotomas, and which instruments are best for measuring visual field loss.

#### Social Security Act

Comment: Several commenters recommended that we amend the language used in the Act regarding blindness.

Response: We did not adopt these comments. We use the language in the Act in our regulations because we do not have the authority to revise the language Congress used in the Act without Congressional legislation.

#### Visual Efficiency

Comment: One commenter noted that the sum of the eight principal meridians we



identify in the right eye in Figure 1 in 2.00A7 is incorrect. The commenter noted that the correct sum of the principal meridians should be 530 instead of 500.

Response: We partially adopted this comment. We revised Figure 1 in 2.00A7 and 102.00A7 to show the points on the principal meridians clearly. However, because we are using the figure to explain a visual efficiency percentage of 100 percent, the sum of the meridians remains 500.

Comment: One commenter believed that we should clarify our guidance on visual efficiency values and percentages to make it easier to differentiate between the two. The commenter said that the term "efficiency value" is inappropriate because it indicates impairment rather than severity, and the commenter suggested that we use the term "impairment value." The commenter also believed that Table 1 in 2.00A7 is confusing because it contains both values and percentages.

Response: We adopted these comments. We have revised 2.00A7 and 102.00A7, and added 2.00A8 and 102.00A8 to include language that clarifies the differences between visual acuity efficiency values and visual acuity efficiency percentages. We also revised the listing criteria for 2.04 and 102.04 to reflect the clarification.

### Lenses

Comment: One commenter suggested that we remove the phrase "because they

significantly reduce the visual field" from our guidance on telescopic lenses in 2.00A5c because reduced field is only one of many reasons why telescopic lenses should not be used to test visual acuity.

Response: We adopted this comment. We agree that there are several reasons that the telescopic lens should not be used to test visual acuity. It is unnecessary to provide an explanation for why each reason is unacceptable for our purposes. We believe that it is sufficient to simply state that visual acuity measurements obtained with telescopic lenses are unacceptable.

Comment: One commenter stated that our use of "perimetric lenses" in proposed 2.00A6g and 102.00A6g is outdated because these types of lenses are rarely used in modern medical practice. The commenter believed that it would be more logical to measure visual fields using the person's usual mode of corrective lenses.

Response: We partially adopted this comment. One of the goals of updating our regulations is to address advances in medical technology and terminology. We have removed the term "perimetric lenses" from 2.00A6g. We did not adopt the comment about using the person's usual mode of corrective lenses for testing. We continue to provide our guidance that eyeglasses should not be worn during visual field testing. Visual field testing accommodates the need for eyeglasses or other corrective lenses, allowing for accurate measurement of visual fields.

What is our authority to make rules and set procedures for determining whether a person is disabled under the statutory definition?

The Act authorizes us to make rules and regulations and to establish necessary and appropriate procedures to implement them. Sections 205(a), 702(a)(5), and 1631(d)(1).

Regulatory Procedures

Executive Order 12866, as supplemented by Executive Order 13563

We have consulted with the Office of Management and Budget (OMB) and determined that these final rules meet the criteria for a significant regulatory action under Executive Order 12866, as supplemented by Executive Order 13563. Therefore, OMB reviewed them.

Regulatory Flexibility Act

We certify that these final rules will not have a significant economic impact on a substantial number of small entities because they affect individuals only. Therefore, the Regulatory Flexibility Act, as amended, does not require us to prepare a regulatory flexibility analysis.

Paperwork Reduction Act

These rules do not create any new or affect any existing collections and, therefore, do not require Office of Management and Budget approval under the Paperwork Reduction Act.

(Catalog of Federal Domestic Assistance Program Nos. 96.001, Social Security — Disability Insurance; 96.002, Social Security — Retirement Insurance; 96.004, Social Security — Survivors Insurance; and 96.006, Supplemental Security Income).

List of Subjects in 20 CFR Part 404

Administrative practice and procedure; Blind, Disability benefits; Old-Age, Survivors, and Disability Insurance; Reporting and recordkeeping requirements; Social Security.

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Carolyn W. Colvin,  
Acting Commissioner of Social Security.

For the reasons set out in the preamble, we are amending 20 CFR chapter III, part 404, subpart P as set forth below:

PART 404—FEDERAL OLD-AGE, SURVIVORS AND DISABILITY INSURANCE  
(1950- )

Subpart P—[Amended]

1. The authority citation for subpart P of part 404 continues to read as follows:

Authority: Secs. 202, 205(a)-(b) and (d)-(h), 216(i), 221(a), (i), and (j), 222(c), 223, 225, and 702(a)(5) of the Social Security Act (42 U.S.C. 402, 405(a)-(b) and (d)-(h), 416(i), 421(a), (i), and (j), 422(c), 423, 425, and 902(a)(5)); sec. 211(b), Pub. L. 104-193, 110 Stat. 2105, 2189; sec. 202, Pub. L. 108-203, 118 Stat. 509 (42 U.S.C. 902 note).

2. Amend appendix 1 to subpart P of part 404 by:

- a. Revising item 3 of the introductory text before part A.
- b. Revising section 2.00A in part A.
- c. Revising sections 2.01 through 2.04 in part A.
- d. Revising section 102.00A in part B.
- d. Revising sections 102.101 through 102.104 in part B.

The revisions read as follows:

## APPENDIX 1 TO SUBPART P OF PART 404—LISTING OF IMPAIRMENTS

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3. Special Senses and Speech (2.00 and 102.00): April 29, 2018.

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Part A

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2.00 SPECIAL SENSES AND SPEECH

A. How do we evaluate visual disorders?

1. What are visual disorders? Visual disorders are abnormalities of the eye, the optic nerve, the optic tracts, or the brain that may cause a loss of visual acuity or visual fields. A loss of visual acuity limits your ability to distinguish detail, read, or do fine work. A loss of visual fields limits your ability to perceive visual stimuli in the peripheral extent of vision.

2. How do we define statutory blindness? Statutory blindness is blindness as

defined in sections 216(i)(1) and 1614(a)(2) of the Social Security Act (Act).

a. The Act defines blindness as central visual acuity of 20/200 or less in the better eye with the use of a correcting lens. We use your best-corrected central visual acuity for distance in the better eye when we determine if this definition is met. (For visual acuity testing requirements, see 2.00A5.)

b. The Act also provides that an eye that has a visual field limitation such that the widest diameter of the visual field subtends an angle no greater than 20 degrees is considered as having a central visual acuity of 20/200 or less. (For visual field testing requirements, see 2.00A6.)

c. You have statutory blindness only if your visual disorder meets the criteria of 2.02 or 2.03A. You do not have statutory blindness if your visual disorder medically equals the criteria of 2.02 or 2.03A or meets or medically equals the criteria of 2.03B, 2.03C, 2.04A, or 2.04B because your disability is based on criteria other than those in the statutory definition of blindness.

3. What evidence do we need to establish statutory blindness under title XVI? To establish that you have statutory blindness under title XVI, we need evidence showing only that your central visual acuity in your better eye or your visual field in your better eye meets the criteria in 2.00A2, provided that those measurements are consistent with the other evidence in your case record. We do not need documentation of the cause of

your blindness. Also, there is no duration requirement for statutory blindness under title XVI (see §§416.981 and 416.983 of this chapter).

4. What evidence do we need to evaluate visual disorders, including those that result in statutory blindness under title II? To evaluate your visual disorder, we usually need a report of an eye examination that includes measurements of your best-corrected central visual acuity (see 2.00A5) or the extent of your visual fields (see 2.00A6), as appropriate. If you have visual acuity or visual field loss, we need documentation of the cause of the loss. A standard eye examination will usually indicate the cause of any visual acuity loss. A standard eye examination can also indicate the cause of some types of visual field deficits. Some disorders, such as cortical visual disorders, may result in abnormalities that do not appear on a standard eye examination. If the standard eye examination does not indicate the cause of your vision loss, we will request the information used to establish the presence of your visual disorder. If your visual disorder does not satisfy the criteria in 2.02, 2.03, or 2.04, we will request a description of how your visual disorder affects your ability to function.

5. How do we measure your best-corrected central visual acuity?

a. Visual acuity testing. When we need to measure your best-corrected central visual acuity (your optimal visual acuity attainable with the use of a corrective lens), we use visual acuity testing for distance that was carried out using Snellen methodology or any other testing methodology that is comparable to Snellen methodology.



(i) Your best-corrected central visual acuity for distance is usually measured by determining what you can see from 20 feet. If your visual acuity is measured for a distance other than 20 feet, we will convert it to a 20-foot measurement. For example, if your visual acuity is measured at 10 feet and is reported as 10/40, we will convert this measurement to 20/80.

(ii) A visual acuity recorded as CF (counts fingers), HM (hand motion only), LP or LPO (light perception or light perception only), or NLP (no light perception) indicates that no optical correction will improve your visual acuity. If your central visual acuity in an eye is recorded as CF, HM, LP or LPO, or NLP, we will determine that your best-corrected central visual acuity is 20/200 or less in that eye.

(iii) We will not use the results of pinhole testing or automated refraction acuity to determine your best-corrected central visual acuity. These tests provide an estimate of potential visual acuity but not an actual measurement of your best-corrected central visual acuity.

b. Other test charts. Most test charts that use Snellen methodology do not have lines that measure visual acuity between 20/100 and 20/200. Some test charts, such as the Bailey-Lovie or the Early Treatment Diabetic Retinopathy Study (ETDRS), used mostly in research settings, have such lines. If your visual acuity is measured with one of these charts, and you cannot read any of the letters on the 20/100 line, we will determine that

you have statutory blindness based on a visual acuity of 20/200 or less. For example, if your best-corrected central visual acuity for distance in the better eye is 20/160 using an ETDRS chart, we will find that you have statutory blindness. Regardless of the type of test chart used, you do not have statutory blindness if you can read at least one letter on the 20/100 line. For example, if your best-corrected central visual acuity for distance in the better eye is 20/125+1 using an ETDRS chart, we will find that you do not have statutory blindness because you are able to read one letter on the 20/100 line.

c. Testing using a specialized lens. In some instances, you may have visual acuity testing performed using specialized lens, such as a contact lens. We will use the visual acuity measurements obtained with a specialized lens only if you have demonstrated the ability to use the specialized lens on a sustained basis. We will not use visual acuity measurements obtained with telescopic lenses.

d. Cycloplegic refraction is an examination of the eye performed after administering cycloplegic eye drops capable of relaxing the ability of the pupil to become smaller and temporarily paralyzing the focusing muscles. If your case record contains the results of cycloplegic refraction, we may use the results to determine your best-corrected central visual acuity. We will not purchase cycloplegic refraction.

e. Visual evoked response (VER) testing measures your response to visual events and can often detect dysfunction that is undetectable through other types of examinations. If you have an absent response to VER testing in your better eye, we will determine that

your best-corrected central visual acuity is 20/200 or less in that eye and that your visual acuity loss satisfies the criterion in 2.02 when these test results are consistent with the other evidence in your case record. If you have a positive response to VER testing in an eye, we will not use that result to determine your best-corrected central visual acuity in that eye.

6. How do we measure your visual fields?

a. General. We generally need visual field testing when you have a visual disorder that could result in visual field loss, such as glaucoma, retinitis pigmentosa, or optic neuropathy, or when you display behaviors that suggest a visual field loss. When we need to measure the extent of your visual field loss, we use visual field testing (also referred to as perimetry) carried out using automated static threshold perimetry performed on an acceptable perimeter. (For perimeter requirements, see 2.00A9.)

b. Automated static threshold perimetry requirements.

(i) The test must use a white size III Goldmann stimulus and a 31.5 apostilb (asb) white background (or a 10 candela per square meter ( $\text{cd/m}^2$ ) white background). The stimuli test locations must be no more than 6 degrees apart horizontally or vertically. Measurements must be reported on standard charts and include a description of the size and intensity of the test stimulus.

(ii) We measure the extent of your visual field loss by determining the portion of the visual field in which you can see a white III4e stimulus. The "III" refers to the standard Goldmann test stimulus size III (4 mm<sup>2</sup>), and the "4e" refers to the standard Goldmann intensity filter (0 decibel (dB) attenuation, which allows presentation of the maximum luminance) used to determine the intensity of the stimulus.

(iii) In automated static threshold perimetry, the intensity of the stimulus varies. The intensity of the stimulus is expressed in decibels (dB). A perimeter's maximum stimulus luminance is usually assigned the value 0 dB. We need to determine the dB level that corresponds to a 4e intensity for the particular perimeter being used. We will then use the dB printout to determine which points you see at a 4e intensity level (a "seeing point"). For example:

A. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 10,000 asb, a 10 dB stimulus is equivalent to a 4e stimulus. Any point you see at 10 dB or greater is a seeing point.

B. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 4,000 asb, a 6 dB stimulus is equivalent to a 4e stimulus. Any point you see at 6 dB or greater is a seeing point.

C. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 1,000 asb, a 0 dB stimulus is equivalent to a 4e stimulus. Any point you see

at 0 dB or greater is a seeing point.

c. Evaluation under 2.03A. To determine statutory blindness based on visual field loss in your better eye (2.03A), we need the results of a visual field test that measures the central 24 to 30 degrees of your visual field; that is, the area measuring 24 to 30 degrees from the point of fixation. Acceptable tests include the Humphrey Field Analyzer (HFA) 30-2, HFA 24-2, and Octopus 32.

d. Evaluation under 2.03B. To determine whether your visual field loss meets listing 2.03B, we use the mean deviation or defect (MD) from acceptable automated static threshold perimetry that measures the central 30 degrees of the visual field. MD is the average sensitivity deviation from normal values for all measured visual field locations. When using results from HFA tests, which report the MD as a negative number, we use the absolute value of the MD to determine whether your visual field loss meets listing 2.03B. We cannot use tests that do not measure the central 30 degrees of the visual field, such as the HFA 24-2, to determine if your impairment meets or medically equals 2.03B.

e. Other types of perimetry. If the evidence in your case contains visual field measurements obtained using manual or automated kinetic perimetry, such as Goldmann perimetry or the HFA "SSA Test Kinetic," we can generally use these results if the kinetic test was performed using a white III4e stimulus projected on a white 31.5 asb ( $10 \text{ cd/m}^2$ ) background. Automated kinetic perimetry, such as the HFA "SSA Test

Kinetic," does not detect limitations in the central visual field because testing along a meridian stops when you see the stimulus. If your visual disorder has progressed to the point at which it is likely to result in a significant limitation in the central visual field, such as a scotoma (see 2.00A6h), we will not use automated kinetic perimetry to determine the extent of your visual field loss. Instead, we will determine the extent of your visual field loss using automated static threshold perimetry or manual kinetic perimetry.

f. Screening tests. We will not use the results of visual field screening tests, such as confrontation tests, tangent screen tests, or automated static screening tests, to determine that your impairment meets or medically equals a listing or to evaluate your residual functional capacity. We can consider normal results from visual field screening tests to determine whether your visual disorder is severe when these test results are consistent with the other evidence in your case record. (See §§404.1520(c), 404.1521, 416.920(c), and 416.921 of this chapter.) We will not consider normal test results to be consistent with the other evidence if the clinical findings indicate that your visual disorder has progressed to the point that it is likely to cause visual field loss, or you have a history of an operative procedure for retinal detachment.

g. Use of corrective lenses. You must not wear eyeglasses during visual field testing because they limit your field of vision. You may wear contact lenses to correct your visual acuity during the visual field test to obtain the most accurate visual field measurements. For this single purpose, you do not need to demonstrate that you have the

ability to use the contact lenses on a sustained basis.

h. Scotoma. A scotoma is a field defect or non-seeing area (also referred to as a “blind spot”) in the visual field surrounded by a normal field or seeing area. When we measure your visual field, we subtract the length of any scotoma, other than the normal blind spot, from the overall length of any diameter on which it falls.

7. How do we determine your visual acuity efficiency, visual field efficiency, and visual efficiency?

a. General. Visual efficiency, a calculated value of your remaining visual function, is the combination of your visual acuity efficiency and your visual field efficiency expressed as a percentage.

b. Visual acuity efficiency. Visual acuity efficiency is a percentage that corresponds to the best-corrected central visual acuity for distance in your better eye. See Table 1.

Table 1 - Visual Acuity Efficiency

| Snellen best-corrected central visual acuity for distance |               | Visual acuity efficiency (%)<br>(2.04A) |
|---|---------------|---|
| <u>English</u>  | <u>Metric</u> |   |
| 20/16   | 6/5           | 100                                     |

|        |       |     |
|--------|-------|-----|
| 20/20  | 6/6   | 100 |
| 20/25  | 6/7.5 | 95  |
| 20/30  | 6/9   | 90  |
| 20/40  | 6/12  | 85  |
| 20/50  | 6/15  | 75  |
| 20/60  | 6/18  | 70  |
| 20/70  | 6/21  | 65  |
| 20/80  | 6/24  | 60  |
| 20/100 | 6/30  | 50  |

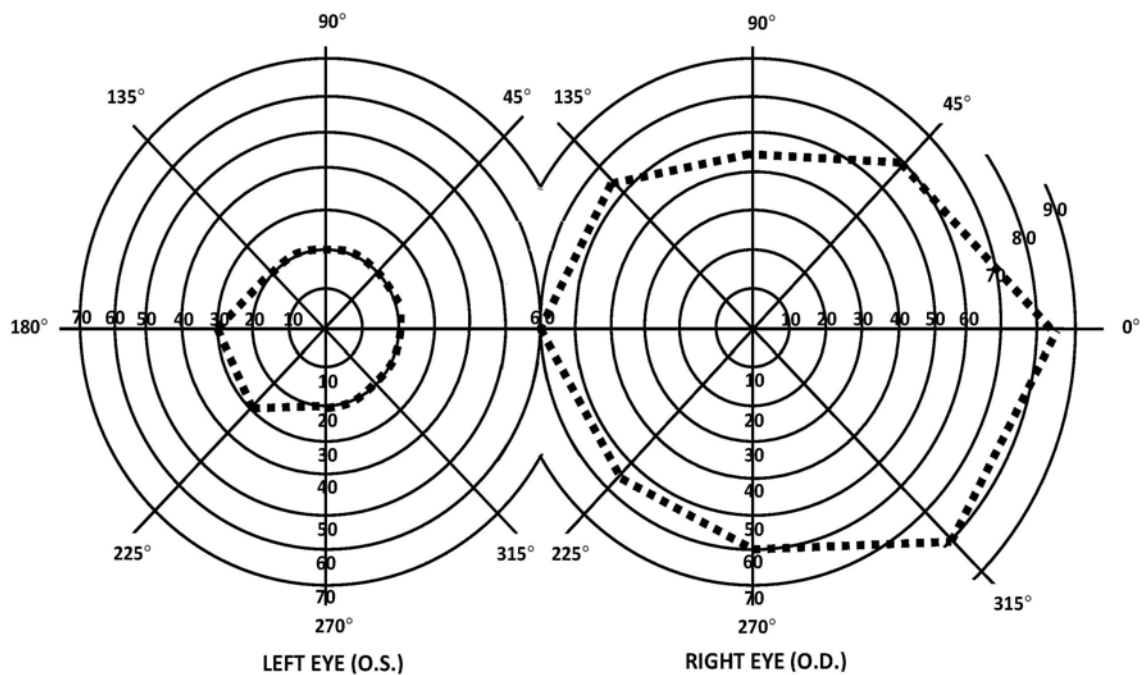
c. Visual field efficiency. Visual field efficiency is a percentage that corresponds to the visual field in your better eye. Under 2.03C, we require kinetic perimetry to determine your visual field efficiency percentage. We calculate the visual field efficiency percentage by adding the number of degrees you see along the eight principal meridians found on a visual field chart (0, 45, 90, 135, 180, 225, 270, and 315) in your better eye and dividing by 5. For example, in Figure 1:

A. The diagram of the left eye illustrates a visual field, as measured with a III4e stimulus, contracted to 30 degrees in two meridians (180 and 225) and to 20 degrees in the remaining six meridians. The visual efficiency percentage of this field is:  $((2 \times 30) + (6 \times 20)) \div 5 = 36$  percent.



B. The diagram of the right eye illustrates the extent of a normal visual field as measured with a III4e stimulus. The sum of the eight principal meridians of this field is 500 degrees. The visual efficiency percentage of this field is  $500 \div 5 = 100$  percent.

Figure 1:



d. Visual efficiency. Under 2.04A, we calculate the visual efficiency percentage by multiplying your visual acuity efficiency percentage (see 2.00A7b) by your visual field efficiency percentage (see 2.00A7c) and dividing by 100. For example, if your visual acuity efficiency percentage is 75 and your visual field efficiency percentage is 36, your visual efficiency percentage is:  $(75 \times 36) \div 100 = 27$  percent.

8. How do we determine your visual acuity impairment value, visual field

impairment value, and visual impairment value?

a. General. Visual impairment value, a calculated value of your loss of visual function, is the combination of your visual acuity impairment value and your visual field impairment value.

b. Visual acuity impairment value. Your visual acuity impairment value corresponds to the best-corrected central visual acuity for distance in your better eye. See Table 2.

Table 2 - Visual Acuity Impairment Value

| Snellen best-corrected central visual acuity for distance |               | Visual acuity impairment <u>value</u><br>(2.04B) |
|---|---------------|--|
| <u>English</u>  | <u>Metric</u> |  |
| 20/16   | 6/5           | 0.00   |
| 20/20   | 6/6           | 0.00   |
| 20/25   | 6/7.5         | 0.10   |
| 20/30   | 6/9           | 0.18   |
| 20/40   | 6/12          | 0.30   |
| 20/50   | 6/15          | 0.40   |
| 20/60   | 6/18          | 0.48   |
| 20/70   | 6/21          | 0.54   |

|        |      |      |
|--------|------|------|
| 20/80  | 6/24 | 0.60 |
| 20/100 | 6/30 | 0.70 |

c. Visual field impairment value. Your visual field impairment value corresponds to the visual field in your better eye. Using the MD from acceptable automated static threshold perimetry, we calculate the visual field impairment value by dividing the absolute value of the MD by 22. For example, if your MD on an HFA 30-2 is -16, your visual field impairment value is:  $|-16| \div 22 = 0.73$ .

d. Visual impairment value. Under 2.04B, we calculate the visual impairment value by adding your visual acuity impairment value (see 2.00A8b) and your visual field impairment value (see 2.00A8c). For example, if your visual acuity impairment value is 0.48 and your visual field impairment value is 0.73, your visual impairment value is:  $0.48 + 0.73 = 1.21$ .

9. What are our requirements for an acceptable perimeter? We will use results from automated static threshold perimetry performed on a perimeter that:

- a. Uses optical projection to generate the test stimuli.
- b. Has an internal normative database for automatically comparing your performance with that of the general population.

c. Has a statistical analysis package that is able to calculate visual field indices, particularly MD.

d. Demonstrates the ability to correctly detect visual field loss and correctly identify normal visual fields.

e. Demonstrates good test-retest reliability.

f. Has undergone clinical validation studies by three or more independent laboratories with results published in peer-reviewed ophthalmic journals.

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## 2.01 Category of Impairments, Special Senses and Speech

2.02 Loss of central visual acuity. Remaining vision in the better eye after best correction is 20/200 or less.

## 2.03 Contraction of the visual field in the better eye, with:

A. The widest diameter subtending an angle around the point of fixation no greater than 20 degrees.

OR

B. An MD of 22 decibels or greater, determined by automated static threshold perimetry that measures the central 30 degrees of the visual field (see 2.00A6d).

OR

C. A visual field efficiency of 20 percent or less, determined by kinetic perimetry (see 2.00A7c).

2.04 Loss of visual efficiency, or visual impairment, in the better eye:

A. A visual efficiency percentage of 20 or less after best correction (see 2.00A7d).

OR

B. A visual impairment value of 1.00 or greater after best correction (see 2.00A8d).

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Part B

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## 102.00 SPECIAL SENSES AND SPEECH

### A. How do we evaluate visual disorders?

1. What are visual disorders? Visual disorders are abnormalities of the eye, the optic nerve, the optic tracts, or the brain that may cause a loss of visual acuity or visual fields. A loss of visual acuity limits your ability to distinguish detail, read, do fine work, or perform other age-appropriate activities. A loss of visual fields limits your ability to perceive visual stimuli in the peripheral extent of vision.

2. How do we define statutory blindness? Statutory blindness is blindness as defined in sections 216(i)(1) and 1614(a)(2) of the Social Security Act (Act).

a. The Act defines blindness as central visual acuity of 20/200 or less in the better eye with the use of a correcting lens. We use your best-corrected central visual acuity for distance in the better eye when we determine if this definition is met. (For visual acuity testing requirements, see 102.00A5.)

b. The Act also provides that an eye that has a visual field limitation such that the widest diameter of the visual field subtends an angle no greater than 20 degrees is considered as having a central visual acuity of 20/200 or less. (For visual field testing requirements, see 102.00A6.)

c. You have statutory blindness only if your visual disorder meets the criteria of 102.02A, 102.02B, or 102.03A. You do not have statutory blindness if your visual disorder medically equals the criteria of 102.02A, 102.02B, or 102.03A or meets or medically equals the criteria of 102.03B, 102.03C, 102.04A, or 102.04B because your disability is based on criteria other than those in the statutory definition of blindness.

3. What evidence do we need to establish statutory blindness under title XVI? To establish that you have statutory blindness under title XVI, we need evidence showing only that your central visual acuity in your better eye or your visual field in your better eye meets the criteria in 102.00A2, provided that those measurements are consistent with the other evidence in your case record. We do not need documentation of the cause of your blindness. Also, there is no duration requirement for statutory blindness under title XVI (see §§416.981 and 416.983 of this chapter).

4. What evidence do we need to evaluate visual disorders, including those that result in statutory blindness under title II? To evaluate your visual disorder, we usually need a report of an eye examination that includes measurements of your best-corrected central visual acuity (see 102.00A5) or the extent of your visual fields (see 102.00A6), as appropriate. If you have visual acuity or visual field loss, we need documentation of the cause of the loss. A standard eye examination will usually indicate the cause of any visual acuity loss. A standard eye examination can also indicate the cause of some types of visual field deficits. Some disorders, such as cortical visual disorders, may result in

abnormalities that do not appear on a standard eye examination. If the standard eye examination does not indicate the cause of your vision loss, we will request the information used to establish the presence of your visual disorder. If your visual disorder does not satisfy the criteria in 102.02, 102.03, or 102.04, we will request a description of how your visual disorder affects your ability to function.

5. How do we measure your best-corrected central visual acuity?

a. Visual acuity testing. When we need to measure your best-corrected central visual acuity, which is your optimal visual acuity attainable with the use of a corrective lens, we use visual acuity testing for distance that was carried out using Snellen methodology or any other testing methodology that is comparable to Snellen methodology.

(i) Your best-corrected central visual acuity for distance is usually measured by determining what you can see from 20 feet. If your visual acuity is measured for a distance other than 20 feet, we will convert it to a 20-foot measurement. For example, if your visual acuity is measured at 10 feet and is reported as 10/40, we will convert this measurement to 20/80.

(ii) A visual acuity recorded as CF (counts fingers), HM (hand motion only), LP or LPO (light perception or light perception only), or NLP (no light perception) indicates that no optical correction will improve your visual acuity. If your central visual acuity in



an eye is recorded as CF, HM, LP or LPO, or NLP, we will determine that your best-corrected central visual acuity is 20/200 or less in that eye.

(iii) We will not use the results of pinhole testing or automated refraction acuity to determine your best-corrected central visual acuity. These tests provide an estimate of potential visual acuity but not an actual measurement of your best-corrected central visual acuity.

(iv) Very young children, such as infants and toddlers, cannot participate in testing using Snellen methodology or other comparable testing. If you are unable to participate in testing using Snellen methodology or other comparable testing due to your young age, we will consider clinical findings of your fixation and visual-following behavior. If both these behaviors are absent, we will consider the anatomical findings or the results of neuroimaging, electroretinogram, or visual evoked response (VER) testing when this testing has been performed.

b. Other test charts.

(i) Children between the ages of 3 and 5 often cannot identify the letters on a Snellen or other letter test chart. Specialists with expertise in assessment of childhood vision use alternate methods for measuring visual acuity in young children. We consider alternate methods, for example, the Landolt C test or the tumbling-E test, which are used to evaluate young children who are unable to participate in testing using Snellen

methodology, to be comparable to testing using Snellen methodology.

(ii) Most test charts that use Snellen methodology do not have lines that measure visual acuity between 20/100 and 20/200. Some test charts, such as the Bailey-Lovie or the Early Treatment Diabetic Retinopathy Study (ETDRS), used mostly in research settings, have such lines. If your visual acuity is measured with one of these charts, and you cannot read any of the letters on the 20/100 line, we will determine that you have statutory blindness based on a visual acuity of 20/200 or less. For example, if your best-corrected central visual acuity for distance in the better eye is 20/160 using an ETDRS chart, we will find that you have statutory blindness. Regardless of the type of test chart used, you do not have statutory blindness if you can read at least one letter on the 20/100 line. For example, if your best-corrected central visual acuity for distance in the better eye is 20/125+1 using an ETDRS chart, we will find that you do not have statutory blindness because you are able to read one letter on the 20/100 line.

c. Testing using a specialized lens. In some instances, you may have visual acuity testing performed using a specialized lens, such as a contact lens. We will use the visual acuity measurements obtained with a specialized lens only if you have demonstrated the ability to use the specialized lens on a sustained basis. We will not use visual acuity measurements obtained with telescopic lenses.

d. Cycloplegic refraction is an examination of the eye performed after administering cycloplegic eye drops capable of relaxing the ability of the pupil to become

smaller and temporarily paralyzing the focusing muscles. If your case record contains the results of cycloplegic refraction, we may use the results to determine your best-corrected central visual acuity. We will not purchase cycloplegic refraction.

e. VER testing measures your response to visual events and can often detect dysfunction that is undetectable through other types of examinations. If you have an absent response to VER testing in your better eye, we will determine that your best-corrected central visual acuity is 20/200 or less in that eye and that your visual acuity loss satisfies the criterion in 102.02A or 102.02B4, as appropriate, when these test results are consistent with the other evidence in your case record. If you have a positive response to VER testing in an eye, we will not use that result to determine your best-corrected central visual acuity in that eye.

6. How do we measure your visual fields?

a. General. We generally need visual field testing when you have a visual disorder that could result in visual field loss, such as glaucoma, retinitis pigmentosa, or optic neuropathy, or when you display behaviors that suggest a visual field loss. When we need to measure the extent of your visual field loss, we use visual field testing (also referred to as perimetry) carried out using automated static threshold perimetry performed on an acceptable perimeter. (For perimeter requirements, see 102.00A9.)

b. Automated static threshold perimetry requirements.

(i) The test must use a white size III Goldmann stimulus and a 31.5 apostilb (asb) white background (or a 10 candela per square meter ( $\text{cd/m}^2$ ) white background). The stimuli test locations must be no more than 6 degrees apart horizontally or vertically. Measurements must be reported on standard charts and include a description of the size and intensity of the test stimulus.

(ii) We measure the extent of your visual field loss by determining the portion of the visual field in which you can see a white III4e stimulus. The "III" refers to the standard Goldmann test stimulus size III ( $4 \text{ mm}^2$ ), and the "4e" refers to the standard Goldmann intensity filter (0 decibel (dB) attenuation, which allows presentation of the maximum luminance) used to determine the intensity of the stimulus.

(iii) In automated static threshold perimetry, the intensity of the stimulus varies. The intensity of the stimulus is expressed in decibels (dB). A perimeter's maximum stimulus luminance is usually assigned the value 0 dB. We need to determine the dB level that corresponds to a 4e intensity for the particular perimeter being used. We will then use the dB printout to determine which points you see at a 4e intensity level (a "seeing point"). For example:

A. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 10,000 asb, a 10 dB stimulus is equivalent to a 4e stimulus. Any point you see at 10 dB or greater is a seeing point.

B. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 4,000 asb, a 6 dB stimulus is equivalent to a 4e stimulus. Any point you see at 6 dB or greater is a seeing point.

C. When the maximum stimulus luminance (0 dB stimulus) on an acceptable perimeter is 1,000 asb, a 0 dB stimulus is equivalent to a 4e stimulus. Any point you see at 0 dB or greater is a seeing point.

c. Evaluation under 102.03A. To determine statutory blindness based on visual field loss in your better eye (102.03A), we need the results of a visual field test that measures the central 24 to 30 degrees of your visual field; that is, the area measuring 24 to 30 degrees from the point of fixation. Acceptable tests include the Humphrey Field Analyzer (HFA) 30–2, HFA 24–2, and Octopus 32.

d. Evaluation under 102.03B. To determine whether your visual field loss meets listing 102.03B, we use the mean deviation or defect (MD) from acceptable automated static threshold perimetry that measures the central 30 degrees of the visual field. MD is the average sensitivity deviation from normal values for all measured visual field locations. When using results from HFA tests, which report the MD as a negative number, we use the absolute value of the MD to determine whether your visual field loss meets listing 102.03B. We cannot use tests that do not measure the central 30 degrees of the visual field, such as the HFA 24–2, to determine if your impairment meets or

medically equals 102.03B.

e. Other types of perimetry. If your case record contains visual field measurements obtained using manual or automated kinetic perimetry, such as Goldmann perimetry or the HFA "SSA Test Kinetic," we can generally use these results if the kinetic test was performed using a white III4e stimulus projected on a white 31.5 asb (10 cd/m<sup>2</sup>) background. Automated kinetic perimetry, such as the HFA "SSA Test Kinetic," does not detect limitations in the central visual field because testing along a meridian stops when you see the stimulus. If your visual disorder has progressed to the point at which it is likely to result in a significant limitation in the central visual field, such as a scotoma (see 102.00A6h), we will not use automated kinetic perimetry to determine the extent of your visual field loss. Instead, we will determine the extent of your visual field loss using automated static threshold perimetry or manual kinetic perimetry.

f. Screening tests. We will not use the results of visual field screening tests, such as confrontation tests, tangent screen tests, or automated static screening tests, to determine that your impairment meets or medically equals a listing, or functionally equals the listings. We can consider normal results from visual field screening tests to determine whether your visual disorder is severe when these test results are consistent with the other evidence in your case record. (See §416.924(c) of this chapter.) We will not consider normal test results to be consistent with the other evidence if the clinical findings indicate that your visual disorder has progressed to the point that it is likely to cause visual field loss, or you have a history of an operative procedure for retinal

detachment.

g. Use of corrective lenses. You must not wear eyeglasses during visual field testing because they limit your field of vision. You may wear contact lenses to correct your visual acuity during the visual field test to obtain the most accurate visual field measurements. For this single purpose, you do not need to demonstrate that you have the ability to use the contact lenses on a sustained basis.

h. Scotoma. A scotoma is a field defect or non-seeing area (also referred to as a “blind spot”) in the visual field surrounded by a normal field or seeing area. When we measure your visual field, we subtract the length of any scotoma, other than the normal blind spot, from the overall length of any diameter on which it falls.

7. How do we determine your visual acuity efficiency, visual field efficiency, and visual efficiency?

a. General. Visual efficiency, a calculated value of your remaining visual function, is the combination of your visual acuity efficiency and your visual field efficiency expressed as a percentage.

b. Visual acuity efficiency. Visual acuity efficiency is a percentage that corresponds to the best-corrected central visual acuity for distance in your better eye. See Table 1.

Table 1 - Visual Acuity Efficiency

| Snellen best-corrected central visual acuity for distance |               | Visual acuity efficiency (%)<br>(102.04A) |
|---|---------------|---|
| <u>English</u>  | <u>Metric</u> |   |
| 20/16   | 6/5           | 100                                       |
| 20/20   | 6/6           | 100                                       |
| 20/25   | 6/7.5         | 95  |
| 20/30   | 6/9           | 90  |
| 20/40   | 6/12          | 85  |
| 20/50   | 6/15          | 75  |
| 20/60   | 6/18          | 70  |
| 20/70   | 6/21          | 65  |
| 20/80   | 6/24          | 60  |
| 20/100  | 6/30          | 50  |

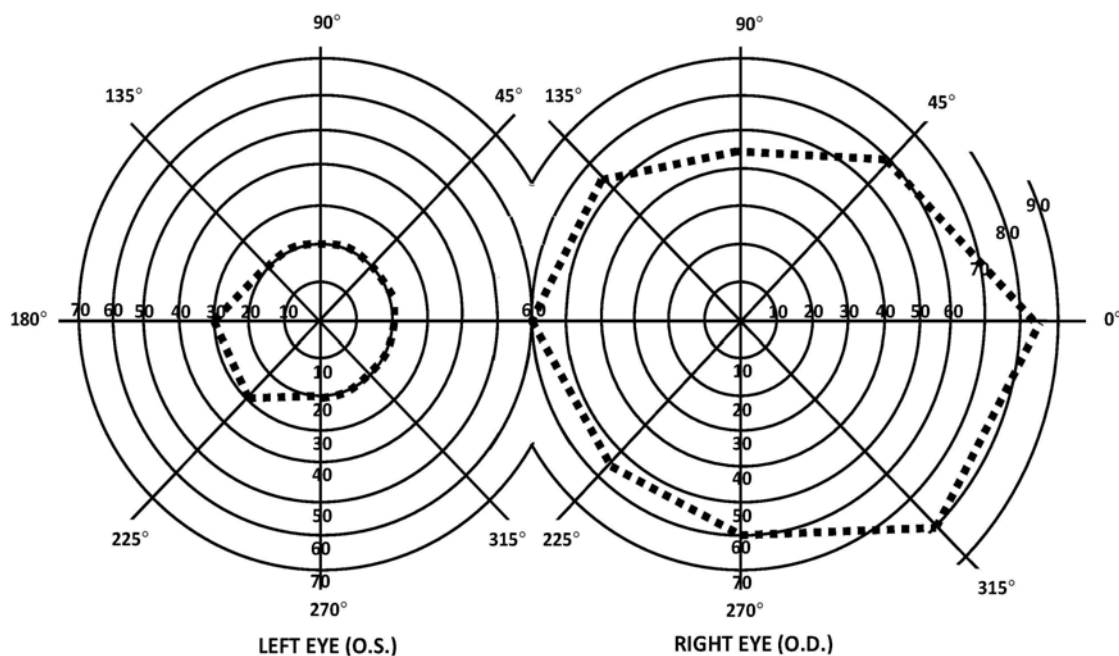
c. Visual field efficiency. Visual field efficiency is a percentage that corresponds to the visual field in your better eye. Under 102.03C, we require kinetic perimetry to determine your visual field efficiency percentage. We calculate the visual field efficiency percentage by adding the number of degrees you see along the eight principal meridians found on a visual field chart (0, 45, 90, 135, 180, 225, 270, and 315) in your better eye and dividing by 5. For example, in Figure 1:



A. The diagram of the left eye illustrates a visual field, as measured with a III4e stimulus, contracted to 30 degrees in two meridians (180 and 225) and to 20 degrees in the remaining six meridians. The visual efficiency percentage of this field is:  $((2 \times 30) + (6 \times 20)) \div 5 = 36$  percent.

B. The diagram of the right eye illustrates the extent of a normal visual field as measured with a III4e stimulus. The sum of the eight principal meridians of this field is 500 degrees. The visual efficiency percentage of this field is  $500 \div 5 = 100$  percent.

Figure 1:



d. Visual efficiency. Under 102.04A, we calculate the visual efficiency percentage

by multiplying your visual acuity efficiency percentage (see 102.00A7b) by your visual field efficiency percentage (see 102.00A7c) and dividing by 100. For example, if your visual acuity efficiency percentage is 75 and your visual field efficiency percentage is 36, your visual efficiency percentage is:  $(75 \times 36) \div 100 = 27$  percent.

8. How do we determine your visual acuity impairment value, visual field impairment value, and visual impairment value?

a. General. Visual impairment value, a calculated value of your loss of visual function, is the combination of your visual acuity impairment value and your visual field impairment value.

b. Visual acuity impairment value. Your visual acuity impairment value corresponds to the best-corrected central visual acuity for distance in your better eye. See Table 2.

Table 2 - Visual Acuity Impairment Value

| Snellen best-corrected central visual acuity for distance |               | Visual acuity impairment value<br>(102.04B) |
|---|---------------|---|
| <u>English</u>  | <u>Metric</u> |   |
| 20/16   | 6/5           | 0.00  |
| 20/20   | 6/6           | 0.00  |

|        |       |      |
|--------|-------|------|
| 20/25  | 6/7.5 | 0.10 |
| 20/30  | 6/9   | 0.18 |
| 20/40  | 6/12  | 0.30 |
| 20/50  | 6/15  | 0.40 |
| 20/60  | 6/18  | 0.48 |
| 20/70  | 6/21  | 0.54 |
| 20/80  | 6/24  | 0.60 |
| 20/100 | 6/30  | 0.70 |

c. Visual field impairment value. Your visual field impairment value corresponds to the visual field in your better eye. Using the MD from acceptable automated static threshold perimetry, we calculate the visual field impairment value by dividing the absolute value of the MD by 22. For example, if your MD on an HFA 30-2 is -16, your visual field impairment value is:  $|-16| \div 22 = 0.73$ .

d. Visual impairment value. Under 102.04B, we calculate the visual impairment value by adding your visual acuity impairment value (see 102.00A8b) and your visual field impairment value (see 102.00A8c). For example, if your visual acuity impairment value is 0.48 and your visual field impairment value is 0.73, your visual impairment value is:  $0.48 + 0.73 = 1.21$ .

9. What are our requirements for an acceptable perimeter? We will use results

from automated static threshold perimetry performed on a perimeter that:

- a. Uses optical projection to generate the test stimuli.
- b. Has an internal normative database for automatically comparing your performance with that of the general population.
- c. Has a statistical analysis package that is able to calculate visual field indices, particularly mean deviation or mean defect.
- d. Demonstrates the ability to correctly detect visual field loss and correctly identify normal visual fields.
- e. Demonstrates good test-retest reliability.
- f. Has undergone clinical validation studies by three or more independent laboratories with results published in peer-reviewed ophthalmic journals.

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102.01 Category of Impairments, Special Senses and Speech

102.02 Loss of central visual acuity.

A. Remaining vision in the better eye after best correction is 20/200 or less..

OR

B. An inability to participate in visual acuity testing using Snellen methodology or other comparable testing, clinical findings that fixation and visual-following behavior are absent in the better eye, and one of the following:

1. Abnormal anatomical findings indicating a visual acuity of 20/200 or less in the better eye (such as the presence of Stage III or worse retinopathy of prematurity despite surgery, hypoplasia of the optic nerve, albinism with macular aplasia, or bilateral optic atrophy); or

2. Abnormal neuroimaging documenting damage to the cerebral cortex which would be expected to prevent the development of a visual acuity better than 20/200 in the better eye (such as neuroimaging showing bilateral encephalomyelitis or bilateral encephalomalacia); or

3. Abnormal electroretinogram documenting the presence of Leber's congenital amaurosis or achromatopsia in the better eye; or

4. An absent response to VER testing in the better eye.

102.03 Contraction of the visual field in the better eye, with:

A. The widest diameter subtending an angle around the point of fixation no greater than 20 degrees.

OR

B. An MD of 22 decibels or greater, determined by automated static threshold perimetry that measures the central 30 degrees of the visual field (see 102.00A6d.).

OR

C. A visual field efficiency of 20 percent or less, determined by kinetic perimetry (see 102.00A7c).

102.04 Loss of visual efficiency, or visual impairment, in the better eye:

A. A visual efficiency percentage of 20 or less after best correction (see 102.00A7d.).

OR

B. A visual impairment value of 1.00 or greater after best correction (see 102.00A8d).

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